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A NEW CHAOBORID GNAT, *CHAOBORUS LACUSTRIS* SP. NOV. (CHAOBORIDÆ; DIPTERA)

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For several years complaints have been received at the University from the vicinity of Clear Lake, Lake County, California, concerning the pest of gnats which inundates the country near the lake throughout the summer months. These insects are non-biting but are so numerous that they make life almost unbearable by flying into the eyes and mouth, contaminating food and filling store windows inches deep with their dead bodies if white lights are exposed in the evening. Nearly all the householders and campers in the vicinity of the lake have been forced to use red shaded lights for illumination to prevent being swamped with these insects.

An examination in 1925 proved them to be chaoborids of the subgenus *Sayomyia* and they were provisionally determined as *Chaoborus (Sayomyia) astictopus* Dyar and Shannon. A careful study of new material proves them to be a distinct species, the description of which follows:

Chaoborus (Sayomyia) lacustris Freeborn, sp. nov.

Male. Head: Pale brown with vestiture of straw-colored hairs. Tori large, occupying nearly whole width of face, pale brown, apically excavated and bearing plumose antennæ; antennæ translucent except at whorls, hairs of which are golden yellow. Clypeus flattened, prominent, densely covered with golden hairs, pale brown and darker at margins. Proboscis and palpi transparent with brown markings. Eyes dark red.

Thorax: Prothoracic lobes large but not contiguous, anterior half rich brown, posterior white. Posterior pronotum white with brown stripe along dorsal margin and slight infuscation on posterior margin. Mesonotum white shading to cream with rich brown markings bordered by lines of darker brown arranged as follows: two median stripes tapering posteriorly starting at anterior border and ending at antescutellar space, two subdorsal stripes tapering posteriorly start-

ing on either side of median stripes at point midway of disc and ending at scutellum; faint triangular spot with base at scutellum and apex pointing between two median stripes; pale circular spot indefinitely defined between anterior end of each subdorsal stripe and anterior margin. Scutellum white at center with brown markings at each side, vestiture of golden hairs. Postscutellum dark brown with a median, V-shaped, white cleft at the anterior margin. Pleuræ pale cream with numerous brown markings, most conspicuous of which is that covering lower three-fourths of the sternopleurite. Prothoracic sclerites densely haired, others smooth, bare except four upper mesepimerals. Halteres entirely white. Legs densely hairy, creamy white with brown markings; forelegs more heavily pigmented than others; femora with subapical brown bands and brown spots at hair insertions, tibiæ with subbasal and subapical brown bands and brown spots at hair insertions, basitarsus as long as next two segments, each segment with apical brown ring growing fainter on the distal segments. Claws simple. Wing veins clothed with narrow, hair-like scales, anterior margin clothed with narrow, appressed scales, posterior margin with two lengths of lanceolate scales, one short and other longer than greatest distance between anal vein and hind margin. Slight brownish stains on wing membrane at base of R2, at fork of R2+3, at r-m and m-cu. Marginal distance between terminations of R1 and Sc almost twice that between R1 and R2. Fork of R2 and R3 distinctly distad of fork of M1+2 and M3+4. R2 slightly down-curved at margin. Crossveins r-m and m-cu forming continuous line. Cu2 becomes evanescent at margin, but appears to incline forward and run parallel with the margin. Tillyard's "Cu2" is fully as prominent as the so-called Cu2 paralleling Cu2 to point near margin, anal vein prominent, down-curved near margin and paralleled by prominent fold, another anal parallels hind margin.

Abdomen: First segment translucent white, wider than long; second to seventh longer than wide, translucent white, lateral margins of tergite and sternite dark brown, the coloring becoming progressively narrower as the mid-dorsum and mid-sternum is approached, giving appearance of lateral triangles; seventh largely brown; eighth funnel-shaped, one-fourth length of seventh and rotated 180 degrees.

Terminalia: Gonostyles (side pieces) slender at base expanding to tip, stained with brown on outer half; a subapical, rounded lobe bears three and sometimes four stout spines, the inner face from base to lobe heavily studded with bent hairs not markedly different in size from spines of lobe; dististyles (claspers) bent, pale at base, brown at tip, which is very slightly expanded, no appendage (claw). Paraprocts (tenth sternites) curving around base of gonostyles with only terminal points parallel to the latter, pale at base, deeply pigmented at tip which is cleft in two parts so that they resemble inverted high-heeled cow-puncher's boots. In balsam mounts two

paraprocts are straightened and take V-shaped position with terminal ends pointing laterally and caudally. Length of male 5 mm.

Female. Similar in coloration to male except that pigmentation is more pronounced and deeper brown; triangle in antescutellar space not always distinct; first abdominal tergite with dark pigmentation, dark markings of venter limited to scattered spots; tarsal rings more distinct than in male, last segment all brown; stained areas on wings more pronounced and numerous, all forks and most marginal terminations of veins with stained area. Palpi with basal segments swollen, the terminal one as long as combined length of two segments preceding, slender, annulated. Abdominal segments wider than long. Claws simple, Length, 4 mm.

Type, male, California Academy of Sciences, No. 1873, Lakeport, Lake County, California, July 19, 1925.

This species falls near *C. punctipennis* Say and *C. astictopus* D. and S. It differs from both in having very pronounced markings on the mesonotum and in the form of the paraprocts. The abdominal markings in the female agree closely with those of *astictopus* and the chaetotaxy of the gonostyle is very similar to that of *punctipennis*.

LABOPS BURMEISTERI STAL

In the March, 1926, number of the Canadian Entomologist Dr. Knight requests information regarding the occurrence of *Labops burmeisteri* in New York State. With the consent of Mr. Evans I retained the specimen of this species which I determined in 1909 and a reëxamination of this specimen shows it to be the true *burmeisteri* as determined by Dr. Knight. At the time I made this determination I had a second specimen from the Adirondack Mountains of New York, which passed through my hands for study, so the New York determination can be depended upon. I have not time now to look up the Alaskan record and it is possible that may refer to the form later described as *tumidifrons* Knigt.

In my material of *hirtus* Knigt. one specimen from New Mexico has the tibiae altogether black with the long tibial hairs and male claspers of *hirtus*, so the color of the tibiae cannot be relied upon in separating these forms. *Labops hesperius* Uhl. as restricted by Knight is still unknown to me.—E. P. Van Duzee.